

Application No. 09/473,638  
Attorney Docket No. 15-IS-5286  
RCE and Amendment dated November 8, 2004  
Reply to Final Office Action of August 11, 2004

**Amendments to the Claims:** Reflected in the listing of claims that begins on page 3 of this paper.

**Remarks/Arguments:** Begin on page 10 of this paper.

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### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### LISTING OF CLAIMS

1. (Currently amended) For a picture archiving and communication system (PACS), a method for partial preprocessing of raw image data at an image acquisition workstation connected to the PACS system, the method comprising:

receiving raw image data from an imaging modality at ~~said the~~ image acquisition workstation;

storing predetermined preprocessing functions applicable to the raw image data, wherein ~~said the~~ predetermined preprocessing functions include at least one of a frequency preprocessing function and a contrast preprocessing function;

applying, at the image acquisition workstation, at least one and fewer than all of the preprocessing functions to the raw image data to form partially preprocessed raw image data[.];

~~wherein at least one of said preprocessing functions is applied to said partially preprocessed raw image data at a display workstation;~~

transmitting the partially preprocessed raw image data to a PACS network, wherein ~~said the~~ PACS network includes a preprocessing database and an image database, ~~said the~~ preprocessing database utilized for storing ~~said the~~ partially preprocessed raw image data, ~~said the~~ image database utilized for storing a fully preprocessed image data,

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wherein ~~said~~ the fully preprocessed image data is created by applying all of ~~said~~ the preprocessing functions to ~~said~~ the raw image data to form fully preprocessed image data; and storing ~~said~~ the partially preprocessed raw image data in ~~said~~ the preprocessing database,

wherein at least one of the preprocessing functions is subsequently applied to the partially preprocessed raw image data at a display workstation.

2. (Canceled)

3. (Original) The method of claim 1, wherein the step of applying further comprises applying at least one frequency preprocessing function to the raw image data.

4. (Original) The method of claim 3, wherein the step of applying further comprises applying a frequency preprocessing function characterized by at least one of a RN, RE, and RT preprocessing parameter.

5. (Previously presented) The method of claim 1, wherein the step of applying further comprises applying the at least one contrast preprocessing function to the raw image data.

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6. (Original) The method of claim 5, wherein the step of applying further comprises applying a contrast preprocessing function characterized by at least one of a GT, GA, GC, and GS preprocessing parameter.

7. (Currently amended) An image acquisition workstation for a picture archiving and communication system (PACS) and for partial preprocessing of raw image data, the image acquisition workstation comprising:

a processing circuit;

an imaging modality interface for receiving raw image data at the image acquisition workstation; and

a software memory coupled to the processing circuit, the software memory storing instructions for:

receiving the raw image data from an imaging modality;

applying, at the image acquisition workstation, at least one and fewer than all of predetermined preprocessing functions to the raw image data to form partially preprocessed raw image data,

wherein ~~said~~ the predetermined preprocessing functions include at least one of a frequency preprocessing function and a contrast preprocessing function

~~wherein at least one of said preprocessing functions is applied to said partially preprocessed raw image data at a display workstation; and~~

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transmitting the partially preprocessed raw image data to a PACS network for storage in a preprocessing database,

**wherein at least one of the preprocessing functions is subsequently applied to the partially preprocessed raw image data at a display workstation.**

8. (Original) The image acquisition workstation of claim 7, wherein the raw image data corresponds to an anatomical region, and wherein the at least one preprocessing function applied to form the partially preprocessed raw image data is selected based on the anatomical region.

9. (Canceled)

10. (Previously presented) The image acquisition workstation of claim 7, wherein the applying instructions further comprise instructions for applying the at least one frequency preprocessing function to the raw image data.

11. (Original) The image acquisition workstation of claim 10, wherein the applying instructions further comprise instructions for applying a frequency preprocessing function characterized by at least one of a RN, RE, and RT preprocessing parameter.

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12. (Previously presented) The image acquisition workstation of claim 7, wherein the applying instructions further comprise instructions for applying the at least one contrast preprocessing function to the raw image data.

13. (Original) The image acquisition workstation of claim 12, wherein the applying instructions further comprise instructions for applying a contrast preprocessing function characterized by at least one of a GT, GA, GC, and GS preprocessing parameter.

14. (Currently amended) A medical data network comprising:  
an imaging modality;  
an image acquisition workstation;  
a PACS network interfaced to the image acquisition workstation, the PACS network comprising a networked PACS image database, display workstation, and preprocessing database, and wherein the image acquisition workstation comprises:

a processing circuit;  
an imaging modality interface coupled to the imaging modality for receiving raw image data at the image acquisition workstation; and

a software memory coupled to the processing circuit, the software memory storing instructions for:

receiving the raw image data from an imaging modality;

applying, at the image acquisition workstation, at least one and fewer than all of predetermined preprocessing functions to the raw image data to form partially preprocessed raw image data,

wherein said predetermined preprocessing functions include at least one of a frequency preprocessing function and a contrast preprocessing function,

~~wherein at least one of said preprocessing functions is applied to said partially preprocessed raw image data at a display workstation;~~ and

transmitting the partially preprocessed raw image data to a PACS network for storage in a preprocessing database,

wherein at least one of the preprocessing functions is subsequently applied to the partially preprocessed raw image data at a display workstation.

15. (Original) The medical data network of claim 14, wherein the raw image data corresponds to an anatomical region, and wherein the at least one preprocessing function applied to form the partially preprocessed raw image data is selected based on the anatomical region.

16. (Canceled)

17. (Previously presented) The medical data network of claim 14, wherein the applying instructions further comprise instructions for applying the at least one frequency preprocessing function to the raw image data.

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18. (Original) The medical data network of claim 17 wherein the applying instructions further comprise instructions for applying a frequency preprocessing function characterized by at least one of a RN, RE, and RT preprocessing parameter.

19. (Previously presented) The medical data network of claim 14, wherein the applying instructions further comprise instructions for applying the at least one contrast preprocessing function to the raw image data.

20. (Original) The medical data network of claim 19, wherein the applying instructions further comprise instructions for applying a contrast preprocessing function characterized by at least one of a GT, GA, GC, and GS preprocessing parameter.